D6412 Control Panel

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BOSCH
Invented for life

▶ Eight on-board points

▶ Eight programmable scheduled events

▶ Wireless functions

▶ Up to 32 users with optional key fob operation

▶ Four programmable authority levels

The 6000 Series D6412 Control Panel provides control and communication functions to easily:
- View system status
- Silence alarms
- Turn the system on and off
- Control functions such as lighting and heating

With up to 40 points of detection you can monitor doors, windows, inventory and showrooms as well as security devices. Each user can have a personalized passcode to turn the system on and off or silence alarms. Users can also have a wireless key fob to turn on the system from a parking area or to turn off the system when carrying items.
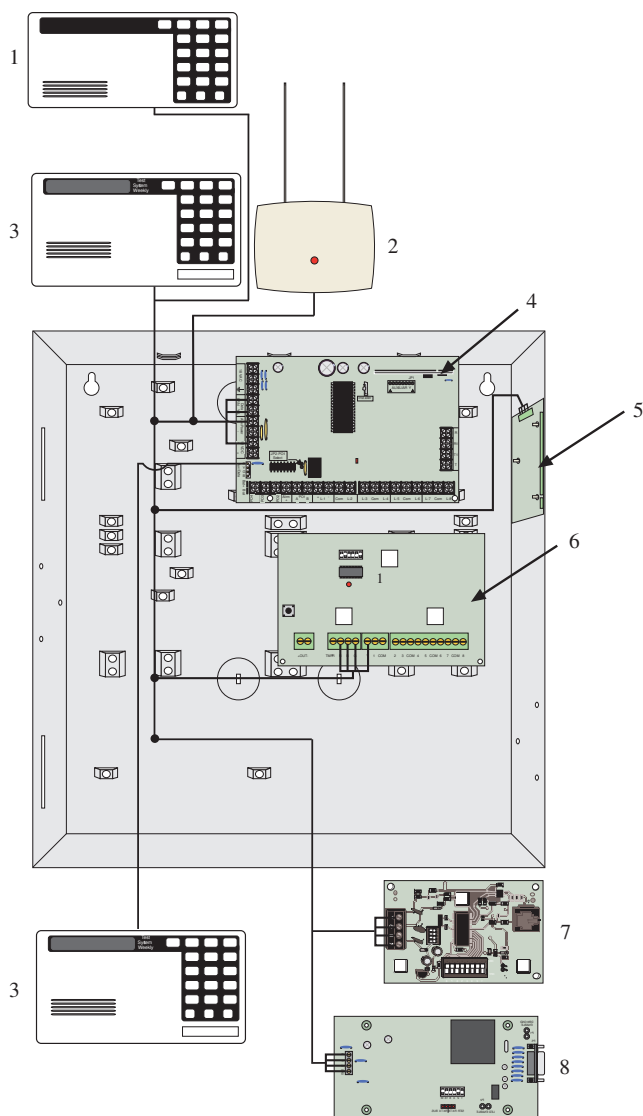
Use programmable authority levels with restricted privileges to provide service, security, and cleaning personnel with full or limited access. Use the four programmable outputs (expandable up to 20) to turn on lights or open and lock doors. You can:
- Turn on the system to secure the stock room while you conduct daily business.
- Perform tests to ensure your system is working properly.
- Set your system to alarm immediately if a door opens.
- Activate the Watch feature so a tone sounds whenever a customer enters.
- Set a schedule for your system to automatically turn on at closing time.

- Use wireless security options to customize your system.

Central Monitoring Stations provide 24-hour system monitoring with access to vital services. Professional security personnel can test the system, monitor system activity, and alert the police, fire department, or other emergency response teams if necessary.

System overview

7 DX3020 X-10 Interface Module
.

8 DX4010i RS-232 Serial Interface Module
.

Functions

Areas
You can divide the D6412 Control Panel into four independently configurable areas. Each area has specific keypads and can have its own account number.

Area 1 can be programmed as a common area that follows the arming state of all the other areas. The common area arms only when all areas are armed. This protects shared areas such as foyers and entry-ways while maintaining separate areas.

You can program an automatic arming time for each area. You can extend the Auto All On time by one hour (delayed arming).

Outputs
The D6412 Control Panel has four on-board programmable outputs. You can expand up to 20 outputs.

PO 1: An alarm power output. The default configuration for PO 1 makes it a dry contact, Normally Open relay.

PO 2: Use with Alarm + as a supervised speaker driver. Connect an approved 4 W or 8 W speaker. PO 2 can sink up to 500 mA, 12 VDC.

PO 3 and 4: Alarm outputs. These outputs can sink up to 500 mA, 12 VDC each.

Points
The D6412 Control Panel has eight on-board points and supports hard-wired expanded points and wireless points up to 40 points. Program any of these points to follow one of 15 point indexes.

The 6000 Series Control Panels allow doubled point configuration using two resistors per sensor loop. The control panel monitors two points per sensor loop in the doubled configuration, creating 15 on-board points. Point doubling is also possible for hard-wired expanded points.

> **i Notice**
> On-board Point 1 cannot be doubled.

You can extend delay times for entry or exit points located a long distance from the keypad.

Multiple Users and Passcodes
The system supports up to 32 passcodes and users. The passcodes can range between three and seven digits. The default is four digits.

Programmable from Keypads or from RPS
Program the system using keypads or using RPS. An installer's keypad feature allows quick access to the programming menu. RPS is an account management and control panel-programming utility for the

1 D621 Series Keypad (D621, D621W, D621B)
.

2 RF3224 RF Receiver
.

3 D623 or D625 Series Keypad (DD623, D623W, D623B, D625,
. D625W, D625B)
The second D623 or D625 Series Keypad shown represents an installer's keypad. This keypad is not necessary for programming or diagnostics.

4 D6412 Control Panel
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5 DX3010 Series Octo-Output Expander
.

6 DX2010 Series Input Expander
.

Microsoft® Windows® operating system. It is designed to remotely or locally set up and program specific control panels.

PK32 Programming Key
The D6412 Control Panel uses the PK32 Programming Key to copy one control panel's programming to another control panel. Installers can use the PK32 Programming Key as a template. For example, an installer could store a residential template in one PK32 and a commercial template in another PK32. A light emitting diode (LED) lights to indicate when information is sent to or from the PK32 Programming Key, and the LED blinks when functional diagnostics are performed on the PK32 Programming Key.

Keypads
The D6412 Control Panel supports LED, liquid crystal display (LCD), and vacuum fluorescent (VF) keypads. It requires a D623 Series Keypad or a D625 Series Keypad for local system programming or for use as an installer's keypad.

On a keypad, enter a passcode followed by a function key to perform functions such as arming and disarming the system or resetting the smoke detectors. The supported keypads provide new users with easy to follow procedures, and provide expert users quick access.

Communications Formats
The D6412 Control Panel works with most alarm receivers on the market. It supports Contact ID, Modem IIIa^2, and Basic Pager communication formats. The Basic Pager format allows control panels to dial a digital pager service and leave a numeric message representing the account number, event number, area number, and point or user number.

Routing Destinations
The D6412 Control Panel has two routing destinations for reports. The control panel routes by point and report group to the destinations. You can send alarm reports for one point to Destination 1, and send alarm reports for another point to Destination 2. Each destination has two programmable 32-digit phone numbers, and there is a programmable answering machine bypass function. No external hardware is required.

Event History Log
The event history log stores up to 254 events in non-volatile memory. You can read the log at a compatible keypad or upload it to RPS. The event history log stores a list of open or close events, alarms, and troubles. Area, point (device), user, and communication information relevant to each event is also tracked. The event history log organizes the information by time and date.

Scheduled Events (Skeds)
Skeds are programmable events that occur at a specific time and on a specific day. These events include Auto All On, Auto Part On, Auto Part2 On, Auto Off, Output Function On and Output Function Off. Users can extend the Auto All On, Auto Part On and Auto Part2 On time by one hour using the Extend Auto On Time function. Users with the appropriate assigned authority level can change any of the eight available skeds.

Fire Alarm Verification
You can program the D6412 Control Panel to automatically reset smoke detectors after an alarm. If a second alarm occurs within the verification window, an immediate fire alarm results. This reduces potential false alarms while providing fast response to an alarm.

Certifications and approvals

	ANSI/SIA	Complies with ANSI/SIA CP-01 Control Panel Standard Features for False Alarm Reduction
	FCC	Complies with Federal Communications Commission (FCC)

Region	Certification	
USA	UL	All models: AMCX: Central Station Alarm Units (UL1610, UL1635), AOTX: Local Alarm Units (UL464, UL609), APAW: Police Station Alarm Units (UL365, UL464), APOU: Proprietary Alarm Units (UL1076), NBSX: Household Burglar Alarm System Units (UL1023), UTOU: Control Units and Accessories - Household System Type (UL985)
	UL	D6412: AMTB: Control Panels, SIA False Alarm Reduction
	CSFM	7167-1615:0183 7167 -- CONTROL UNIT (HOUSEHOLD)

Installation/configuration notes

Wiring Considerations
- Up to 305 m (1,000 ft) between the control panel or external power supply and the keypad when using 0.8 mm (#22 AWG) wire.
- Up to 610 m (2,000 ft) between the control panel or external power supply and the keypad when using 1.2 mm (#18 AWG) wire.
- Do not exceed two keypads using 0.8 mm (#22 AWG) wire on any 305 m (1,000 ft) run when powered from the control panel.
- Do not exceed three keypads using 1.2 mm (#18 AWG) wire on any 305 m (1,000 ft) run when powered from the control panel.

Compatible Products

Keypads	D279A Independent Zone Control
	D621 Series LED Keypads (D621, D621W, D621B)

D623 Series LCD Keypads (D623, D623W, D623B)

D625 Series VF Keypads (D625, D625W, and D625B)

Detectors

D263 Series Photoelectric Smoke Detectors

D285/TH Photoelectric Smoke Detector Heads

D380 Carbon Monoxide Detector

D381 Air Quality Detector

D382 Combustible Gas Detector

OD850 Series Outdoor TriTech Detectors

Bosch conventional detectors include Blue Line, seismic, PIR, TriTech PIR Microwave, photoelectric, request-to-exit, and heat, and smoke.

Enclosures

D8103 Universal Enclosure

D8108A Attack-Resistant Enclosure

D8109 Fire Enclosure

D2203 Enclosure Enclosure

Magnetic Contacts

All Bosch magnetic contacts, including recessed, terminal connection, miniature, overhead door, and surface mount.

Bells

D440 Bell 12 V, 15 cm (6 in.)

D441 Bell 24 V, 15 cm (6 in.)

MB-G10-12-R Bell 12 V, 25.4 cm (10 in.)

MB-G10-24-R Bell 24 V, 25.4 cm (10 in.)

Modules

C900V2 Dialer Capture Module

D169 Two-way Voice Verification Module

D192C Notification Appliance Circuit Module

DX2010 Eight-input Expander

DX3010 Octo-output Expander

DX3020 X-10 Control Module

DX4010i RS-232 Serial Interface Module

Peripheral Hardware

rvm4c Remote Video Module

SAFECOM Radio Communicators

SC2104 Series Slave Communicators

SC3100 Series Data Transfer Radio Communicators

SC4000 Series Full Data Transfer Radio Communicator

Wireless Products

RF3226 Quik Bridge Receiver

RF3224 RF Receiver

RF280THS Series Wireless Smoke Detectors

RF835 Series Wireless TriTech Detectors

RF920 Wireless PIR Detector

RF3341 RF Keypad

RF1100 Glass Break Detector

RF3401 Series RF Transmitter

RF3332 Series Two-button RF Key Fob

RF3334 Series Four-button RF Key Fob

RF3502 Panic Key Fob (304 MHz)

Parts included

D6412 Components	Quantity
D6412 Board	1
D2203 Enclosure	1
CX4010 Transformer	1

Technical specifications

Communications

SDI Bus:	12 VDC nominal
Telephone Interface:	RJ31X or RJ38X

Enclosure

Material:	1.0 mm (20 gauge), cold-rolled steel
Dimensions:	36.8 cm x 31.8 cm x 7.6 cm (14.5 in. x 12.5 in. x 3 in.)

Environmental Considerations

Relative Humidity:	5% to 85% at +30°C (+86°F) non-condensing
Temperature (Operating):	0°C to +49°C (+32°F to +120°F)

Keypads

Maximum Number:	8

Power Outputs

Continuous Power:	600 mA maximum
Alarm Power:	1.85 A maximum at 11.5 VDC to 12.4 VDC

Power Requirements

Primary Voltage Input:	18 VAC, 22 VA Class 2 plug-in transformer (CX4010)
Secondary Voltage Input:	12 VDC, 7 Ah or 12 VDC, 18 Ah sealed lead-acid rechargeable battery
Current Requirements:	100 mA

Trademarks

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D6412 Kit Ordering Information

Components	Kits				
	D6412LC	D6412LT	D6412M	D6412C621	D6412C621W
D6412 Board	1	1	1	1	1
D2203 Enclosure		1		1	1
D2402 Mounting Skirt			1		
CX4010 Transformer				1	1
D621 Keypad				1	
D621W Keypad					1

Components	Kits			
	D6412C623	D6412C623W	D6412C625	D6412C625W
D6412 Board	1	1	1	1
D2203 Enclosure	1	1	1	1
CX4010 Transformer	1	1	1	1
D623 Keypad	1			
D623W Keypad		1		
D625 Keypad			1	
D625W Keypad				1

Ordering information

D6412 Control Panel
Includes one printed circuit board (PCB), one universal enclosure assembly, and assorted hardware.
Order number **D6412**

D6412 Kit without Enclosure
Includes one PCB, assorted hardware, and assorted literature. Requires an enclosure.
Order number **D6412LC**

D6412 Kit without Transformer
Includes one PCB and one enclosure. Requires a transformer.
Order number **D6412LT**

D6412 Kit with Mounting Skirt
Includes one PCB and one mounting skirt.
Order number **D6412M**

D6412 Kit with LED Keypad
Includes one PCB, one enclosure, one transformer, and one D621 LED Keypad.
Order number **D6412C621**

D6412 Kit with LED Keypad
Includes one PCB, one enclosure, one transformer, and one D621W LED Keypad.
Order number **D6412C621W**

D6412 Kit with LCD Keypad
Includes one PCB, one enclosure, one transformer, and one D623 LCD Keypad.
Order number **D6412C623**

D6412 Kit with LCD Keypad
Includes one PCB, one enclosure, one transformer, and one D623W LCD Keypad.
Order number **D6412C623W**

D6412 Kit with VF Keypad
Includes one PCB, one enclosure, one transformer, and one D625 Vacuum Fluorescent Keypad.
Order number **D6412C625**

D6412 Kit with VF Keypad
Includes one PCB, one enclosure, one transformer, and one D625W Vacuum Fluorescent Keypad.
Order number **D6412C625W**

Accessories

CX4010 Plug-in Transformer
For use in North America. 110 VAC primary voltage input. 18 VAC, 22 VA secondary input.
Order number **CX4010**

ICP-EZTS Dual Tamper Switch
Combination tamper switch with a wire loop for additional tamper outputs.
Order number **ICP-EZTS**

D101 Lock and Key Set
Short-body lock set with one key supplied. Uses the D102 (#1358) replacement key.
Order number **D101**

D122 Dual Battery Harness
Harness with circuit breaker. Connects two batteries to a compatible control panel.
Order number **D122**

D122L Dual Battery Harness with Long Leads
Color-coded harness with circuit breaker and leads measuring 89 cm (35 in.). Connects 12 V batteries to compatible control panels.
Order number **D122L**

D126 Standby Battery (12 V, 7 Ah)
A rechargeable sealed lead-acid power supply used as a secondary power supply or in auxiliary or ancillary functions.
Order number **D126**

D160 Telephone Cord
A 2 m (7 ft) telephone cord with standard plug on one end.
Order number **D160**

D166 Telephone Jack
Standard Telco RJ31X Telephone Jack measuring approximately 5 cm (2 in.) square by 2.5 cm (1 in.) high.
Order number **D166**

D1218 Battery (12 V, 18 Ah)
A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors
Order number **D1218**

D1224 Battery (12 V, 26-28 Ah)
A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors.
Order number **D1224**

D1238 Battery (12 V, 38 Ah)
A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors.
Order number **D1238**

D2203 Enclosure
Gray steel enclosure. Accepts an optional lock and tamper switch. Measures 35.6 cm x 31.8 cm x 7.6 cm (14 in x 12.5 in x 3 in).
Order number **D2203**

D2402 Mounting Plate
Required for mounting control panels in D8103, D8108A, or D8109 enclosures.
Order number **D2402**

D8103 Enclosure
Grey steel enclosure measuring 41 cm x 41 cm x 9 cm (16 in. x 16 in. x 3.5 in.).
Order number **D8103**

D8108A Attack Resistant Enclosure
Grey steel enclosure measuring 41 cm x 41 cm x 9 cm (16 in. x 16 in. x 3.5 in.). UL Listed. Includes lock and key set. Requires the D2402 Mounting Plate.
Order number **D8108A**

D8109 Fire Enclosure
Red steel enclosure measuring 40.6 cm x 40.6 cm x 8.9 cm (16 in. x 16 in. x 3.5 in). UL Listed. Includes a lock and key set.
Order number **D8109**

Software Options

RPS Kit (LPT)
Account management and control panel-programming software with LPT connection.
Order number **D5500C-LPT**

RPS Kit (USB)
Account management and control panel programming software with USB security key (dongle).
Order number **D5500C-USB**